Participant Questionnaire

Participant number:	Date: 7/4/2023
Location: Brescia, IT	
HRC Study / Algorithms tested: HAMP STAP-PPE	
Study Conducted by: <u>Javed Flowers</u>	~ 1

Participant link lengths/dimensions: (meters, "spine" is pelvis to shoulder midpoint, "shoulders" is shoulder to shoulder)

Spfine	
Neck	<u> </u>
Shoulders	.29

Left Upper Arm	,34
Left Forearm	.24

Right Upper Arm	. 33	
Right Forearm	. 24	

Participant joint diameter: (meters)

Left Elbow	.09
Left Wrist	.06

Right Elbow	.09
Right Wrist	.06

Questions:

- A. How safe did you feel? (0 is not safe at all, 5 is neutral, 10 is very safe)
- B. Do you think the robot hindered your motions during the task? (0 is robot completely prevented your motions, 5 is neutral, 10 is robot did not impede you motion)
- C. Did the robot perform logical motions? (0 is robot motions made no sense to you, 5 is neutral, 10 is robot motions made sense to you)
- D. What is your overall satisfaction with the HRC task? (0 is you would not work in this HRC cell again, 5 is neutral, 10 is you enjoyed working in this cell with the robot)

For Task 1 (engine parts): (circle your answer to each question)

Task 1, M	ethod 1:	300								3
Question	A: (0 is not	safe at all,	5 is neutral	, 10 is very	safe)					
0	1	2	3	*	5	6	7	8	9	10
Question	B: (0 is rob	ot complete	ely prevent	ed your mo	tions, 5 is r	neutral, 10 i	s robot did	not imped	e you motic	on)
0	1	2	3	4	5	6	7	X	9	10
Question	C: (0 is rob	ot motions	made no se	ense to you,	, 5 is neutra	al, 10 is rob	ot motions	made sens	e to you)	
О	1	2	8	4	5	6	7	8	9	10
Question [): (0 is you w	ould not wo	rk in this HR	C cell again,	5 is neutral,	10 is you en	joyed work	ing in this cel	I with the ro	obot)
0	1	2	-8	4	5	6	7	8	9	10

Task 1, Mo	ethod 2:									l
Question	A: (0 is not	safe at all,	5 is neutral	, 10 is very	safe)					
0	1	2	3	4	8	6	7	8	9	10
Question	B: (0 is rob	ot complete	ely prevent	ed your mo	tions, 5 is n	eutral, 10 is	s robot did	not imped	e you motic	on)
0	1	2	3	4	5	*	7	8	9	10
Question	C: (0 is rob	ot motions	made no se	ense to you	, 5 is neutra	al, 10 is rob	ot motions	made sens	se to you)	
0	1	2	8	4	5	6	7	8	9	10
Question D	: (0 is you w	ould not wo	rk in this HR	C cell again,	5 is neutral,	10 is you en	joyed worki	ng in this ce	ll with the ro	obot)
0	1	2	3	4	8	6	7	8	9	10

Task 1, Me	ethod 3:									2
Question	A: (0 is not	safe at all, 5	is neutral,	, 10 is very	safe)		1- 2			
0	1	2	8	4	5	6	7	8	9	10
Question	B: (0 is rob	ot complete	ly prevente	ed your mo	tions, 5 is r	neutral, 10 is	s robot did	not imped	e you motio	on)
0	1	2	3	4	5	6	R	8	9	10
Question	C: (0 is rob	ot motions r	made no se	nse to you	, 5 is neutra	al, 10 is rob	ot motions	made sens	e to you)	
8	1	2	3	4	5	6	7	. 8	9	10
Question D	Question D: (0 is you would not work in this HRC cell again, 5 is neutral, 10 is you enjoyed working in this cell with the robot)									
0	1	8	3	4	5	6 .	7	8	9	10

Most afraid of robot waited for robot to leave nor/sspace before assembling

For Task 2 (Sharework parts: metal tabs, cylinders, pallets): (circle your answer to each question)

Task 2, M	ethod 1:									3
Question	A: (0 is not	safe at all,	5 is neutral	, 10 is very	safe)					
0	1	2	3	*	5	6	7	8	9	10
Question	B: (0 is robo	ot complete	ely prevente	ed your mo	tions, 5 is r	eutral, 10 i	s robot did	not imped	e you motic	on)
0	1	2	3	4	5	6	7	8	8	10
Question	C: (0 is robo	ot motions	made no se	ense to you	, 5 is neutra	al, 10 is rob	ot motions	made sens	e to you)	
0	1	2	8	4	5	6	7	8	9	10
Question [D: (0 is you w	ould not wo	rk in this HR	C cell again,	5 is neutral,	10 is you en	joyed worki	ng in this cel	ll with the ro	bot)
0	1	2	8	4	5	6	7	8	9	10

Task 2, M	ethod 2:					- Marian San San San San San San San San San S				
Question	A: (0 is not	safe at all,	5 is neutral	, 10 is very	safe)	Market Book		N. T. S.	The second region of the	Service Age
0	1	2	3	A	5	6	7	8	9	10
Question	B: (0 is rob	ot complete	ely prevent	ed your mo	tions, 5 is r	neutral, 10 i	s robot did	not imped	e you moti	on)
0	1	2	3	4	5	6	7	8	9	38 5
Question	C: (0 is rob	ot motions	made no se	ense to you	, 5 is neutra	al, 10 is rob	ot motions	made sens	e to you)	
0	1	8	3	4	5	6	7	8	9	10
Question [): (0 is you w	ould not wo	rk in this HR	C cell again,	5 is neutral,	10 is you en	joyed worki	ing in this cel	l with the ro	bot)
0	1	2	8	4	5	6	7	8	9	10

Task 2, M	ethod 3:	*			in the same		y -			ک
Question	A: (0 is not	safe at all, !	5 is neutral	, 10 is very	safe)					
0	1	2	3	X	5	6	7	8	9	10
Question	B: (0 is robo	ot complete	ly prevent	ed your mo	tions, 5 is r	neutral, 10 i	s robot did	not imped	e you motic	on)
0	1	2	3	4	5	6	7	8	8	10
Question	C: (0 is robo	ot motions	made no se	ense to you	, 5 is neutra	al, 10 is rob	ot motions	made sens	se to you)	
0	X	2	3	4	5	6	7	8	9	10
Question (D: (0 is you w	ould not wo	rk in this HR	C cell again,	5 is neutral,	10 is you en	joyed worki	ng in this ce	ll with the ro	bot)
0	1	8	3	4	5	6	7	8	9	10

Comments: T2-m4: A 6 B 5 C 7 D 7

T2-m5: A 5 B 6 C 4 D 5

Participant number: 4 Date: 7/4/2023